Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

FINAL
Title V, construction/ operation
Permit: V-03-053 (Revision 3)
HOLLEY PERFORMANCE PRODUCTS INC.
BOWLING GREEN, KENTUCKY
September 17, 2008
ZARI HARIRI, REVIEWER
Source I.D. # 21-227-00008
Activity #: APE 20080001
AI#: 4116

MINOR REVISION – V-03-053 R3:

This revision is a combined revision for two separate applications submitted on April 9, and June 18, 2008.

1. In the application submitted on April 9, 2008, the following changes were requested:

Change to the adjamatic Line (EP12):

- Replacing the existing adjamatic /chromate scrubber with a new scrubber that will be of the same or better efficiency as the existing scrubber.
- Activating a new line called "Aluminum Chromate Line" that had been authorized to operate by an off permit change dated July 10, 2007

Change to Dye Line (EP 15):

- Tank 3 and 5 in the dye line, which respectively held Hyproblack Part A&B and Hyprocoat Black S will now be empty

Change to Brass Cleaning Line(EP 15):

- Tank 8, which was formerly used for clean rinse, will contain the 1% HNO3 solution that is currently in Tank2.
- Tank 7, which was formerly empty, will contain a 10% solution of Pre-Black.
- Tank 2, which was formerly contained 1% HNO3, will contain a 20% solution of Eclipse NCB.
- Tank 1, which was formerly empty, will contain a 10% solution of Hypo 200

These tanks all vent to emission point 15.

2. In the application received on June 18, 2008, the following changes were requested

Discussion of HCL usage limit- Emission point 06(13)- Tank 8:

Emission point 06(13) Tank 8 is part of the DMP auto line. Tank 8 holds 80% HCl acid. At the time Title V permit was prepared, the ton per year (TPY) emission limit request was based on Holley's expected amount of usage at that time, which was 0.06 tpy or approximately 1280 lb/yr. Since them some of the Holley's processes and chemical usages have been changed. In 2007 Holley used approximately 2.5 tpy of HCL in Tank 8, which was well below the 5 lb/hr emission limit for HCl usage in Tank 8.

In order to remain in compliance with their permit, Holley is requesting to increase in the usage rate limit for HCl in tank 8 to 18.0 tpy. Other Tanks in Holley's permit that are permitted for HCl(e.g. tank 12 in Brass Cleaning and Tank 9 n DMP Manual) are permitted for a maximum yearly usage rate of approximately 63 tpy. In 2007, plant wide Holley's HCl usage in well below their plant wide limits. Holley's HCl usage in tank 9 of DMP Manual was 2.8 tpy. Holley's usage in Tank 12 of Brass Cleaning was 0 tpy. This tank is currently empty. Holley also recently notified KDEP of a change to the Brass Cleaning line, and that Tank will continue to be empty. Therefore, Holley requests that 18 tons of the allowable usage for that tank be redistributed to Tank 8 of the DMP Auto line, thereby not increasing the site- wide total allowable HCl usage.

Discussion of Maxi-Black usage limit- Emission point 06(15)- Tank 11:

Emission point 06(15) Tank 11 is part of the DMP Manual line. Tank 11 holds Maxi-Black FE. At the time the Title V permit was prepared, the tpy emission limit request was based on the Holley's expected amount of usage, which was 1.09 tpy or approximately 2180 lb/yr. Since then, some of Holley's processes and chemical usages have changed. In 2007, Holley used approximately 2850 pounds (or 1.4 tpy) of Maxi-Black FE in Tank 11. Holley was well bellow the 11.05 lb/hr emission limit for Maxi-Black FE usage in Tank 11.

In order to remain in compliance with their permit, Holley is requesting an increase in the usage rate limit for Maxi-Black FE in Tank 11 on DMP Manual to 3.0 tpy. Holley is also authorized to use this chemical in emission point 06(15) Tank 5, which is also permitted for a maximum yearly usage rate or 1.09 tpy. In 2007, Holly's Maxi-Black usage in Tank 5 was 0 tpy. In 2007, plant wide Holley, Maxi-Black FE usage is well below their plant wide limits.

In 2007, at their current usage rates, Holley was bellow all other permit limits.

U.S. EPA REVIEW:

The U.S. EPA was notified of the issuance of the proposed permit revision on October 3, 2008 via e-mail. The comment period expired 45 days from the date of the e-mail. No comments were received during this period. The permit is now being issued final.

MINOR REVISION NUMBER 2:

Holley Performance Products, Inc. needs to modify chemical usage for two plating lines and construct several new processes (Insignificant activities). The minor revision is only needed to this Title V permit since increased PM emission and VOCs emission caused by all the changes will be less than 1.6 TPY and 0.08 TPY, respectively. There is also no change made to Record Keeping and Monitoring requirements. The contents modified or added are as follows:

1. EP04 (EP05): One Branson ultrasonic Degreaser. Aqueous Ultrasonic Cleaner has been removed.
2. EP05 (EP06) Three Cold Cleaners: Remains three cold cleaners, however, the unit 18(f) replaced 18(c). Only H.P. Carburetor Cleaner is used.
3. EP 06(13): a mesh pad scrubber has been added to increase the efficiency of the scrubber in removing airborne contaminants and for moisture to drop out of the airstream (airflow: 17,560 CFM, and static pressure: 9").
4. EP 06 (13): Dye Line Tank1. The usage of CLEPO-PK-3 has been increased from 0.04 TPY to 0.08 TPY.
5. EP 06 (15): Premium Line Tank 1. The usage of Zinc has been increased from 0.05 TPY to 0.5 TPY.
6. Insignificant Activities (IA):
    a. IA17: Onshrud Surface Milling machines have been removed.
    b. IA 19: 11 CNC Machine & Downdraft Tables have been increased to 24.
    c. New IA25: Five aqueous parts washers.

MINOR REVISION NUMBER 1:

Holley Performance Products, Inc. needs to modify some operation processes and construct several new processes. The minor revision is only needed to this Title V permit. The contents modified or added are as follows:

1. Original EP04 which is Sludge Dehydration System has been deleted since the system has been fully disconnected and not been used.

2. EP04 (EP05) One Branson Ultrasonic Degreaser & 1 Aqueous Ultrasonic Cleaner: Nu-Tri-Clean product replaced Solen 902 in the Aqueous Ultrasonic Cleaner.

3. EP05 (EP06) Six Cold Cleaners: Six cold cleaners has been changed to three since only three are on Site opposing to six the facility originally proposed.

4. EP06 (EP07) Plating Operations:
    a. New chemicals are used, such as Solen 9001 and Solen 9002. Since Solen 9002 contains chromic acid (Chromium VI) and Chromium VI is a type of HAP with serious health concern. Even though Holley did stack grab-sample testing, it did not follow the conditions followed by Section G (d)(7) and the samples were not iso-kinetic. So, Holley is required to show compliance with 401 KAR 63:020, Potentially hazardous matter or toxic substances. The language "In order to show compliance with 401 KAR 63:020, Potentially hazardous matter or toxic substances, the permittee shall model for

Chromium (VI) compounds and Chromic acid mist, due to the emission of chromium from the source. The concentration of Chromium (VI) compounds and Chromic acid mist in the ambient air, open to the public, shall be below the carcinogenic risk of 1 in 1 million (as listed in the EPA Prioritized Dose-Response Values (PRDV)), which corresponds to the concentration of Chromium (VI) compounds and Chromic acid less than or equal to 0.1 $\mu g/m^3$ and 0.008 $\mu g/m^3$, respectively. Results shall be sent to the Division for Air Quality, no later than 3 months from issuance of this permit. If the permittee fails to show compliance as tested or modeled, then measures shall be taken to reduce the emissions which can include but not limited to adding additional control device(s) and/or pollution prevention measures (e.g. material substitution). The permittee is allowed one extra month to submit a remedial plan if one is required. The remedial plan shall also include timeline to accomplish the proposed actions." has been added to Section D (7).

b. Air dispersion modeling has been done for uncontrolled actual Hydrochloric acid emission from Plating Operations using ISCST3, and it was found that the emission was below the threshold for non-cancer risk caused by inhaling Hydrochloric acid (0.02 mg/m^3) specified in PDRV.

c. Contents in some of tanks have been changed and new tanks are added.

Brass Cleaning		
Tank	**Previous Contents**	**Current Contents**
2	Rinse	1% HNO3
3	67% HNO3	Rinse
4	Violet dye	Empty
11	Chromate 154	Yellow T Chromate
Udylite Cleaning		
1	S-224 Soap	49 NC Soap
2	S-161	1054 A Soap
13	Dichromate L154	Yellow T Chromate
Deoxidize		
2	Soap Rinse	Soap Rinse, Resco 4988
3	Dart 151	Empty
DMP Automatic		
1	Warm Rinse	Lab Oil 72D
2	Empty	Caustic Cleaner
3	Empty	50% Caustic
7	Empty	Yellow T Chromate
8	Empty	20% HCl
11	Empty	Yellow T Chromate
14	Zinc Plating	Caustic Cleaner
15	NA	Cold Rinse
16	NA	Cold Rinse
17	NA	Chromate Recovery
Tank	**Previous Contents**	**Current Contents**
DMP Manual		
5	Nickel Pentrate	Maxi Black FE
11	Nickel Pentrate	Maxi Black FE
Premium Line		
4	Dichromate 154 L	Yellow T Chromate
Dye Line		
1	170 Kenvert	CLEPO PK 3

5. Insignificant Activities (IA):

a. *Modified IAs*: Space Heater, SWECO Shaker replacing AR Industries S-4, were modified.
b. *New IAs*: Sand Blasting Process, 11-CNC Machines & Downdraft Tables, 4-Foam packing Processes, Impregnation Line, 4-Above Ground Storage Tanks, and 16-Mineral Spirits Testing, were added.
c. *Existing IAs*, however not included in the original Title V permit: Onshrud Surface Milling machines, 2-Dynos process, and 5-soldering Stations, were added.

6. Section D: Emission limitation and compliance demonstration method for Chromium (VI) have been added (number 9).

SOURCE DESCRIPTION:

Holley Performance Products is a final machining and assembly facility for automotive engine components, with a major focus on carburetors and fuel pumps. Partially finished parts and raw materials are received at the Bowling Green KY facility where they undergo final machining, cleaning, chemical dying or plating, polishing, assembly, quality control testing, packaging for shipment and storage. These processes include:

- Final Machining – parts are heat treated and/or milled to meet assembly criteria;
- Chemical Dying or Plating – parts are run through numerous chemical cleaners and surface preparation solutions before a final chrome or dye coating is applied;
- Polishing – metal parts that have undergone machining, cleaning, and/or chemical dying/plating are polished to remove rough edges and to provide the necessary surface finish
- Assembly – manufactured components are assembled into final automotive components such as carburetors or fuel pumps;
- Quality Control Testing – assembled parts are bench tested to verify fuel flow characteristics and to verify that the parts are operating within specifications;
- Packaging – completed parts are packaged for shipment and consumer sales.

Holley also repairs and rebuilds carburetors. These units are received, disassembled, cleaned, repaired, reassembled, and quality control tested before being shipped to customers. There are a total of 11 stacks located at the plant.

Compliance Assurance Monitoring (CAM) does not apply because Holley Performance Products Inc. does not meet one of the criteria, which 'is subject to emission limitation and has a control device to meet that limit'. Holley Performance Product Inc. is major source for VOC and requested VOC emission limitation, but there is no control equipment to reduce VOC emissions in the plant.

Holley Performance Products Inc. process flow diagrams can be found in Attachment A.

COMMENTS:

1) Emission Point 01(17) – 29 Carburetors Tests Stands and 1 Masterflow Test Stand:
   i) The test stands are used to test new and reconditioned carburetors. Incidental testing is conducted throughout the facility on carburetors and other parts using mineral spirits.

ii) A total of 45 Emission Test Stands (EMS) and 3 Masterflow Test Stands (MFTS) were approved in the revised O-89-076 permit. In the original Title V permit application, a total of 16 EMS and 1 MFTS were applied for. Holley Performance Products Inc. intends to move a similar operation from their plant in Springfield, TN to Bowling Green. The process is similar, except that they recondition rather than produce new carburetors. This move will install an additional 13 EMS to the 16 EMS applied for in the permit application.

iii) Applicable regulations, requirements, limitations and descriptions have been incorporated in the permit.

iv) All the EMS and MFTS are vented to the same stack #1.

v) No control equipment.

2) Emission Point 02(1)) – Carbonitride Heat Treating:

i) One Dow furnace is used to treat steel parts. This unit is a controlled atmosphere furnace that uses cracked natural gas to generate heat and an endothermic atmosphere. The cracked natural gas has a higher carbon monoxide concentration (approximately 20%) than regular natural gas. In addition, ammonia is used in this process to generate nitrogen (resulting in approximately 10% of the ammonia being emitted as NO_x).

ii) Applicable regulations, requirements, limitations and descriptions have been incorporated in the permit.

iii) This emission point is vented to stack #2.

iv) No control equipment.

3) Emission Point 03(11) – Iso-Octane Fuel flow testing:

i) Two units having a constant flow of iso-octane (2,2,4-Trimethylpentane) to perform QA/QC testing on various products.

ii) Applicable regulations, requirements, limitations and descriptions have been incorporated in the permit.

iii) This emission point is vented to stack #3.

iv) No control equipment.

4) Emission Point 04(16) – Sludge Dehydration System:

i) This system is used to dewater sludge from the wastewater treatment process prior to landfill disposal. 2 natural gas burners with a maximum rated capacity of 0.225 mmBTU/hr each are used to generate heat.

ii) Applicable regulations, requirements, limitations and descriptions have been incorporated in the permit.

iii) This emission point is vented to stack #4.

iv) Control equipment = Cyclone (85% efficiency) to control Particulate Matter (PM).

5) Emission Point 05(INS16, 20) – 2 Branson Ultrasonic Degreasers & 1 Aqueous Ultrasonic Cleaner:

i) The Branson Ultrasonic degreasers are used to clean parts in production, using non-halogenated solvents.

ii) The proposed Aqueous Ultrasonic Cleaner utilizes ultrasonic frequencies in conjunction with a phosphate based cleaner to clean castings and small parts.

iii) Applicable regulations, requirements, limitations and descriptions have been

incorporated in the permit.

iv) No control equipment.

6) Emission Point 06[18(a,b,c,d,e,f)] – 6 Cold Cleaners:

i) The proposed cold cleaning units utilize un-heated liquid solvent to clean castings, parts, or completed carburetors. Non-halogenated solvents will be used.

ii) Applicable regulations, requirements, limitations and descriptions have been incorporated in the permit.

iii) There are 3 stacks associated with this emission points:
- 2 main tanks vented to stack #9.
- Supercharger tank vented to stack #10.
- Import area tank vented to stack #11.

iv) No control equipment.

7) Emission Point 07(12,13,14,15) – Plating Operations:

i) There are a total of 8 plating lines that emit through four exhaust points.
- Point 12 vented to stack #5.
- Point 13 vented to stack #6.
- Point 14 vented to stack #7.
- Point 15 vented to stack #8.

ii) Each line consists of a series of 5 to 15 tanks with cleaners, acids, dyes, rinse tanks, and plating baths depending on the preferred surface. Most of the plating is chemical plating. While chrome is present in some of the raw materials, no current is introduced into any of the baths that contain chrome. A series of plastic or metal parts are arranged on hangers and dipped into the appropriate series of baths, and for the duration of time specified in the formula for the individual coating. Parts are left dry after plating and before assembly.

iii) Applicable regulations, requirements, limitations and descriptions have been incorporated in the permit.

iv) Control Equipment:
- Point 12 has a scrubber (95% efficiency).
- Point 13 has an acid scrubber (95% efficiency).
- Point 14 has a Chromate/Zinc scrubber (95% efficiency).
- Point 15 has a scrubber (95% efficiency).

8) Insignificant Activities:

a. Boiler:
The majority of the facility is heated by a 1.8 mmBTU/hr natural gas-fired boiler/heat exhanger. The boiler has the ability to run on heating oil, however it is not equipped for this at the current time.

b. Space heaters:
There are 11 natural gas fired space heaters at the facility used to supply heat to the offices and portions of the production and assembly area.

c. Grinders:
There are seven grinders attached to a baghouse, rated to have 95% control efficiency. Operation of all seven grinders generates up to 1 cubic yard of metal shavings/particulates per year, assuming 4000 hours in a standard work year.

d. 8 Space heaters:
Eight natural gas fired space heaters ranging in size from 130,000 to 400,000 BTU/hr.

e. Fuel pump test stand:
This is a closed loop system used to test fuel pumps. No emissions anticipated.

f. Thermal Deburring:
There are 3 thermal deburring units located at the facility. The units use hydrogen, oxygen, and natural gas to create controlled explosions. This process is used to remove metal burrs from machined parts. All 3 units are vented to a dust collector and single roof vent.

g. Dow parts washer:
This parts washer is used to remove quench oil from parts after heat treating through the Dow carbonitride unit. The parts washer uses natural gas to generate heat and is vented through a roof vent. The unit utilizes an all-purpose cleaner.

h. 6 parts washers:
6 parts washers holding mineral spirits and each consists of an open basin with manual cover.

i. 7 Torex polishers:
The polishing compound is trickled into the water inlet of the polishers which drains to the wastewater treatment plant where the polishing compound ingredients are treated before discharge.

j. Strain drawing of metal parts:
Metal parts are heat treated in the strain drawing oven for strengthening after manufacture. The unit uses natural gas to generate heat and is vented through a roof vent.

k. Maintenance welding:
Welding operations are conducted in the maintenance area of the facility to repair equipment on an as-needed basis.

l. AR Industries Model S-4 shaker:
This unit shakes parts placed in a media to remove metal burrs, etc. A small amount of mineral spirits is sprayed onto the parts, collected and reused. Approximately 10 gallons is consumed per week.

m. 2 heated aqueous washers (proposed):
Used carburetor parts are placed into one of 2 batch operated, natural gas-fired parts washers that utilize an aqueous cleaner.

n. One 2-part foam process:
Completed carburetors are packaged in corrugated fiber boxes for shipment. A 2-part foam is used to fill the void space in the boxes to protect the carburetors.

o. 8 glass bead blasters:
Parts are further cleaned using one of 8 glass bead (or sand) blasting units. The beads are ‘blasted’ at the parts using pneumatic pressure which cleans the parts. The operation takes place within enclosed cabinets. Spent glass beads and displaced dirt, corrosion, etc. are filtered, collected in a control device, and disposed of.

p. 6 aqueous vibratory cleaners:
Castings and parts are cleaned utilizing batch operated vibratory cleaners that contain steel and ceramic media. A phosphate-based cleaner/water mixture is used as the cleaning compound. Parts are separated from the media, and processed. The spent water/cleaner mixture is processed in the on-site wastewater treatment system.

q. Silver soldering line:
Silver soldering is conducted on a conveyor using electric heat guns.

EMISSION AND OPERATING CAPS DESCRIPTION:

i) The source requested limitation on the VOC emissions to preclude PSD major source applicability.
ii) Plant-wide 12-month rolling average of Volatile Organic Compound (VOC) emissions shall not exceed 240 tons/yr, to preclude PSD major source applicability.
iii) Plant-wide 12-month rolling average of Sulfuric Acid emissions shall not exceed 2.23 lbs/hr and 4.46 tons/year. This limitation was included in the revised O-89-076 permit.
iv) Plant-wide 12-month rolling average of Sodium Hydroxide emissions shall not exceed 5.16 lbs/hr and 5.16 tons/year. This limitation was included in the revised O-89-076 permit.
v) Plant-wide 12-month rolling average of Zinc Oxide emissions shall not exceed 12.5 lbs/hr and 12.5 tons/year. This limitation was included in the revised O-89-076 permit.
vi) Plant-wide 12-month rolling average of Chromium III emission shall not exceed 0.251 lbs/hr and 0.777 tons/year. This limitation was included in the revised O-89-076 permit.
vii) The appropriate compliance demonstration methods for emission limitations and operating limitations have been incorporated in the permit.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.